

CLAIMS

What is claimed is:

1. An ejection apparatus, comprising:
 - 5 a bar movable along a first axis;
 - a carriage movable along a second axis distinct from the first axis;
 - the bar defines an edge oriented along an angular position between the first axis and the second axis;
 - the carriage is in physical communication with the edge of the bar;
 - 10 and
 - wherein a movement of the bar along the first axis causes movement of the carriage along the second axis.
- 15 2. The ejection apparatus of claim 1, wherein the first axis and the second axis are separated by an angle that can range from an angle greater than zero to about 180 degrees.
- 20 3. The ejection apparatus of claim 1, wherein the first axis and the second axis are separated by an angle that is about 90 degrees.
- 25 4. The ejection apparatus of claim 1, wherein:
 - the edge of the bar that is oriented along an angular position between the first axis and the second axis is an edge of an opening of the bar;
 - the carriage is in physical communication with a pin that extends from the carriage and through the opening of the bar; and
 - 30 movement of the bar along the first axis causes movement of the pin from a first position along the edge of the opening of the bar to a second position along the edge of the opening of the bar.

5. The ejection apparatus of claim 1, further comprising:
a stationary frame; and
at least a portion of the carriage is in physical communication with the
stationary frame to restrict a movement of the carriage to the second axis.

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6. The ejection apparatus of claim 5, wherein:
the stationary frame defines an opening having an edge oriented
along the second axis;
the carriage has a pin that extends through the opening of the
stationary frame; and
movement of the bar along the first axis causes a movement of the
pin from a first position along the edge of the opening of the stationary frame to a
second position along the edge of the opening of the stationary frame.

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7. The ejection apparatus of claim 6, wherein:
the stationary frame comprises at least one guide; and
wherein bar is in physical communication with the at least one guide
to restrict the movement of the bar to the first axis.

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8. The ejection apparatus of claim 4 further comprising:
a stationary frame disposed between the carriage and the bar, the
stationary frame having an opening and an edge oriented along the second axis;
the pin extends from the carriage and through the opening of the
stationary frame;
the angular position of the edge of the opening of the bar ranges from
about 20 degrees to about 70 degrees between the first axis and the second axis;
and
movement of the bar along the first axis causes movement of the pin
along the edge of the opening of the stationary frame and along the edge of the
opening of the bar.

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9. The ejection apparatus of claim 1 wherein:
the edge of the bar that is oriented along angular position between
the first axis and the second axis is a first edge of a first angled member in physical
communication with the bar;

5 the carriage is in physical communication with a second edge of a
second angled member, the second edge being oriented along angular position
between the first axis and the second axis; and

the first edge of the first angled member is in contact with of the
second edge of the second angled member such that movement of the bar along
10 the first axis causes movement of the carriage along the second axis.

10. An image forming device, comprising:
an ejection apparatus having a button, the button being accessible to
15 the first side of the image forming device; and

wherein the ejection apparatus is capable of ejecting a replaceable
component outward from a second side of the image forming device when the
button is actuated; and

wherein the first side of the image forming device is distinct from the
20 second side of the image forming device.

11. The image forming device of claim 10, wherein the operator panel is
disposed on the first side of the image forming device.

12. The image forming device of claim 10, wherein the replaceable
component comprises a toner cartridge.

13. The image forming device of claim 10, wherein the first side of the
image forming device is substantially orthogonal to the second side of the image
forming device.

14. The image forming device of claim 10, wherein:
the ejection apparatus comprises:
5 a bar movable along a first axis;
a carriage movable along a second axis and in physical
communication with the bar; and
wherein movement of the bar along the first axis causes movement of
the carriage along the second axis.

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15. The image forming device of claim 14, wherein the first axis is
substantially perpendicular to the front side of the image forming device and the
second axis is substantially perpendicular to the second side of the image forming
15 device.

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16. The image forming device of claim 14, wherein the angle between the
first axis and the second axis is about 90 degrees.

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17. The image forming device of claim 14, wherein:
the bar defines an edge oriented along an angular position between
the first axis and the second axis;
25 the carriage is in physical communication with the edge of the bar.

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18. The image forming device of claim 17, wherein:
the edge oriented along an angular position between the first axis and
the second axis is along an opening of the bar;
the carriage is in physical communication with a pin that extends from
5 the carriage and through the opening of the bar; and
movement of the bar along the first axis causes movement of the
carriage from a first position along the edge of the opening of the bar to a second
position along the edge of the opening of the bar.

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19. The image forming device of claim 18, further comprising:
a stationary frame; and
at least a portion of the carriage is in physical communication with the
stationary frame and the stationary frame restricts a movement of the carriage to
15 the second axis.

20. The image forming device of claim 17 wherein:
the edge of the bar that is oriented along angular position between
20 the first axis and the second axis is a first edge of a first angled member in physical
communication with the bar;
the carriage is in physical communication with a second edge of a
second angled member, the second edge being oriented along angular position
between the first axis and the second axis; and
25 the first edge of the first angled member is in contact with of the
second edge of the second angled member such that movement of the bar along
the first axis causes movement of the carriage along the second axis.

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21. An ejection apparatus, comprising:
a carriage that supports a removable component in an image forming
device;
an actuator movable along a first axis;
5 translation means for moving the carriage along a second axis in
response to movement of the actuator along the first axis; and
wherein the angle between the first axis and the second axis can
range from an angle greater than zero to about 180 degrees.

10 22. The ejection apparatus of claim 21, wherein the angle between the
first axis and the second axis is about 90 degrees.

15 23. The ejection apparatus of claim 21, further comprising a constraining
means for restricting the movement of the carriage to a second axis.

20 24. A method of ejecting a replaceable component from an image forming
device, the method comprising:
pushing a button disposed along a first side of the image forming
device;
moving a carriage, supporting the replaceable component, outward
from a second side of the image forming device in response to the pushing; and
25 wherein the first side of the image forming device is distinct from the
second side of the image forming device.

30 25. The method of claim 24, further comprising:
moving a bar along a first axis by pushing the button;
engaging the carriage by moving the bar; and
moving the carriage in a direction substantially orthogonal to the first
side.

26. The method of claim 25, further comprising contacting a pin, in physical communication with the carriage, with an edge of an opening in the bar that is oriented in an axis between the first and the second axis.

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27. The method of claim 26, further comprising:
constraining the movement of the bar along the first axis; and
constraining the movement of the carriage along the second axis.

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28. The method of claim 27, further comprising contacting a pin, in physical communication with the carriage, with an edge of an opening in the frame that is oriented along the second axis.

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29. The method of claim 24, further comprising:
moving a bar along a first axis by pushing the button;
moving a the carriage along the second axis by sliding a first angled edge of bar along a second angled edge of the carriage.